



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

### REGION 8

999 18<sup>TH</sup> STREET - SUITE 500

DENVER, CO 80202-2466

<http://www.epa.gov/region08>

Ref: EPR ER

### INITIAL POLLUTION REPORT Brush Locker Site Brush, Morgan County, Colorado

#### I. HEADING

Date: 02/20/03  
From: Johanna Miller, On-Scene Coordinator  
Agency: EPA  
Unit: Region VIII - Emergency Response Program  
999 18th Street, Suite 300  
Denver Colorado 80202  
(303) 312-6804  
To: Kevin Mould, EPA Headquarters  
POLREP No.: Initial  
Site: Brush Locker

#### II. BACKGROUND

Site Number: 08-GC  
Party Conducting the Action: EPA  
Response Authority: CERCLA  
NPL Status: No  
Action Memorandum Status: 02/10/03  
Date Action Started: 01/03/03  
Completion Date: TBD

#### III. SITE INFORMATION

##### A. Incident Category

Classic Emergency, Fund-Lead

##### B. Site Description

##### 1. Site description

The Brush Locker Site, located at 29429 Morgan County Road consists of approximately 6 acres. The current facility owners, AK Foods, have owned/operated the facility for approximately 18 months. Development on the site consists of a small slaughter house, a storage plant, corrals, and a hide drying shed. Ten residential wells down gradient from



the facility have very elevated nitrate levels. Several possible sources of the contamination, in addition to AK Foods, have been identified in the area (a closed hog farm, cattle feeding operation, closed municipal landfill, and miscellaneous salvage yards).

## **2. Site evaluation**

During an August 20, 2002 inspection at the Aslam Khan (AK) Foods slaughter and meat processing facility, representatives from the Colorado Department of Public Health and Environment/Water Quality Control Division (CDPHE), Northeast Colorado Health Department (NCHD), and Region VIII Environmental Protection Agency/Underground Injection Control (EPA-UIC) observed that the facility's onsite wastewater treatment system had failed. A surface discharge of sanitary waste and process wastewater was observed to flow across the ground and infiltrate into the underlying soil/groundwater. In an effort to determine if an immediate public health threat existed, the CDPHE contracted the NCHD to sample groundwater wells in the vicinity of AK Foods. Monitoring results showed 10 of 29 private wells sampled exceeded the nitrate MCL of 10 mg/l in the vicinity of AK Foods. The highest value determined was 88 mg/l.

On September 6, 2002 CDPHE issued AK Foods a Notice of Violation / Cease and Desist, Clean-Up Order to address the failing/overflowing septic system. As a condition of the Notice of Violation / Cease and Desist, Clean-Up Order, AK Foods was required to conduct a site investigation. Results of the site investigation provided to the CDPHE on November 27, 2002 shows that wastewater handling activities at the AK Foods facility are causing or contributing to the occurrence of elevated nitrates levels in the surrounding groundwater. A high value of 229-mg/l nitrates was determined in the groundwater immediately underlying the AK Foods Facility. Additionally the report showed that the upper layers of soil are heavily contaminated with Nitrate-N (e.g BH 1-1 553 mg/Kg or greater than 1000 #/Acre). The fertilizer requirement for dry grassland is approximately 30# per acre per year (or 15 mg/Kg in the soil). All excess nitrate will migrate to ground water further compounding the nitrate problem in down gradient residential wells.

On December 26, 2002 AK Foods CDPHE issued an amendment to the Notice of Violation / Cease and Desist, Clean-Up Order requiring, among other things, for AK Foods to identify each down gradient drinking water well impacted to-date by the groundwater contamination originating from the Facility's failed wastewater treatment system and to provide each resident dependent upon such wells for domestic drinking water supplies with an appropriate amount of an alternate drinking water supply.

On December 31, 2002 AK Foods formally advised the CDPHE that the current financial condition of AK Foods does not allow them to implement the requirements of the order amendments.

## **3. Description of threat**

Severely elevated levels of nitrates have contaminated the drinking water supply of the area down gradient from AK Foods LLC. Additionally, the ground water is believed to be flowing toward the South Platte River. Well samples taken by the NCHD showed levels of nitrates in the wells in the location of the Site to be as high as 88 mg/L.

#### **IV. RESPONSE INFORMATION**

##### **A. Situation**

###### **1. Removal actions**

On January 2, 2003, EPA's Emergency Response Unit was notified of the sampling results at the Site and the PRP's inability to provide bottle water to the affected residents. The on-duty OSC discussed the report with CDPHE and there was a mutual concern that the contaminated drinking water posed an "imminent and substantial endangerment to human health"; therefore an emergency removal action was initiated at the property. By January 3, 2003 bottled water service was started at 11 residences and one business all of which relied on wells contaminated nitrate at levels in excess of the MCL.

###### **2. State and Local Role**

The Local and State authorities were involved in the concerns at the Site from the start and CDPHE requested EPA assistance. Local and State agencies were present during the sampling/site assessment and continue to try to ascertain the source of the contamination. CDPHE and NCHD will be conducting research and sampling to determine if there are other sources of nitrate in ground water. CDPHE and the Colorado Department of Local Affairs are investigating grant and loan programs that may be available to provide a permanent, safe water supply for affected residents. Nevertheless, neither the State nor local authorities have the resources to immediately provide and continue the supply of bottled water or to conduct other needed removal action at this time.

##### **B. Future Plans**

The Removal Action at this Site thus far has been to sample, evaluate, and respond to a potential plume of contamination in the wells/water at and downgradient from the Site. As a result of the sampling, bottled water is being provided to residences who meet the following criteria:

- their wells are located down gradient or cross gradient to the AK Foods facility; and
- the residence relies on this well as it's primary source of drinking water; and
- the concentration of nitrate in the well exceeds the MCL and Removal Action Level of 10 mg/L.

EPA will conduct a removal of high nitrate soils at the AK Foods facility contaminated by overland flow from failure of the wastewater disposal system to prevent the further migration of nitrate into ground water. Specifically, EPA will conduct the following:

- Removal of top foot of soil in the visually contaminated spill areas, such that the average residual nitrate-N levels are less than 75 mg/Kg and no greater than 100 mg/kg . The excavated area is to be filled and contoured to drain and not pond water. All newly added soil is to be incorporated with the existing subsoil. The area of disturbance is to be seeded with a dryland grass mixture as recommended by the local NRCS office. It is estimated that approximately 650 to 700 tons of soil will be excavated. Excavated soils will be land applied or disposed of in accordance with appropriate State and local solid waste disposal regulations.

In addition, EPA will conduct additional investigations to determine if there are other significant contributors to the plume, to determine the location of the plume, and to see if reduction of the contamination is possible. Residential wells will continue to be monitored on a quarterly or bi-annual basis. In the future, it may be necessary to provide a more permanent water supply to affected residents.

#### **V. COST INFORMATION**

Costs for the removal are estimated to be \$50,000.